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Policy Analysis of Military Optometry Special Pay

A Graduate Management Project submitted to the Residency Committee

In partial fulfillment for the Degree of Masters in Healthcare Administration

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The views expressed in this article are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

Statement of Ethical Conduct in Research

The author is an Army optometrist. The confidentiality of individual members of the study population was protected at all times throughout the study.

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Abstract

The purpose of this policy analysis is to review, analyze, and recommend one of four policy proposals to rectify an outdated recruitment and retention law/policy for Army optometrists. This paper illustrates variables of Army optometric manpower and reviews current recruitment and retention of Army optometry. This paper examines the civilian optometry market and pay gap, and examines the laws under which special pays for Department of Defense healthcare providers are determined. By changing the 1971 law, offering a minimal increased cost to the Army, and by narrowing the military-civilian pay gap, the author recommends a variable Regular Special Pay combined with a variable Retention Special Pay to enhance the recruitment and retention of Army optometrists.

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Policy Analysis of Military Optometry Special Pay

Introduction

There are many healthcare missions that our Army executes. In order for the Army to effectively plan for vision and ocular healthcare, it must continually recruit and retain optometry officers. This paper presents four proposals to economically adjust an existing law concerning optometry Regular Special Pay. The proposals suggest that a change to the Regular Special Pay law (see Appendix), and possibly a change to the Army's current Retention Special Pay policy of Army optometrists, could provide a powerful tool for the Department of Defense (DoD) to recruit and retain Army optometrists.

The Past

The origins of the United States Army optometry date back to World War II when the need for optometrists and general eye care was recognized as essential, but there were no assigned Military Occupational Specialties (MOS) or commissioning provisions for optometrists. Instead, the Soldiers who provided optometric care were enlisted. Public Law 80-337, enacted on 4 August 1947, provided the first legislation to commission optometry officers into the Army Medical Service Corps (U.S. Army Center for Health Promotion and Preventive Medicine, History of Army Optometry, p. 1).

The Vietnam War firmly established the need for the forward presence of optometry in combat divisions. Prior to optometrists being assigned to Army divisions, Soldiers who lost or broke their spectacles had to be evacuated back to a major evacuation hospital. These Soldiers normally remained away from their unit for three or four days and then they had to wait days to weeks for a new pair of glasses. To augment the Army's needs, optometric authorizations were increased to one doctor per 5,000 Soldiers, and optometrists were included in the doctor draft

for the first time in November 1968 (U.S. Army Center for Health Promotion and Preventive Medicine, History of Army Optometry, p. 2).

The Present

Army optometry, along with their civilian counterparts, has continued to expand their scope of practice. In 1981 optometry began using diagnostic drugs and in 1986, the use of therapeutic pharmaceuticals. Today, Army optometry provides a comprehensive scope of diagnostic and therapeutic eye care. U.S. Department of the Army Pamphlet 600-4 (2007) defines an Army optometrist as one who:

“serves as an independent primary health care provider, in various fixed and field medical organizations. Optometrists examine, diagnose, treat, and manage diseases, injuries, and disorders of the visual system, the eye, and associated structures as well as identify related systemic conditions affecting the eye. They prescribe medications, low vision rehabilitation, vision therapy, spectacle lenses, contact lenses, and perform certain surgical procedures. They counsel their patients regarding surgical and non-surgical options that meet their visual needs related to their occupations, avocations, and lifestyle. Duties include consultation in such areas as vision conservation, refractive surgery, combat eye protection, vision readiness, and occupational and aviation visual requirements. The wartime mission also includes the initial diagnosis and management of eye injuries on the battlefield. Duties are performed in TOE/TDA [Table of Organization and Equipment/Table of Distribution and Allowances] organizations, both CONUS [continental United States] and OCONUS [overseas continental United States]” (p. 82).

“The roles of the armed services are complex and reflect a security continuum from wartime to operations other than combat (peacekeeping, humanitarian assistance, disaster assistance) to peacetime (homeland defense, civil disturbances)” (Mangelsdorff, 2006, p. 14). Optometry officers fill these roles, deploying to austere environments in order to provide immediate care to combat Soldiers, deploying on humanitarian missions to provide care to needing patients, and serving at home, caring for our Soldiers, DoD retirees, and their family members.

The Future

The Quadrennial Defense Review (QDR) is a document that assesses how the Department of Defense is organized and operates. It states the current status of the Department and provides direction. The 2006 QDR contends that in addition to fighting traditional style warfare, our future military will transform into a force with capabilities to negotiate irregular, catastrophic, and disruptive type warfare. The review states, "U.S. forces continue to conduct humanitarian assistance and disaster relief operations around the globe. Preventing crises from worsening and alleviating suffering are goals consistent with American values. They are also in the United States' interest. By alleviating suffering and dealing with crises in their early stages, U.S. forces help prevent disorder from spiraling into wider conflict or crisis. They also demonstrate the goodwill and compassion of the United States" (U.S. Department of Defense, 2006, p. 12). U.S. forces will, therefore, help to shape the choices of countries at strategic crossroads.

The Army is undergoing the largest organizational change since World War II as it transforms to a brigade-centric modular force and grows by 74,200 Soldiers. "On 23 January 2007 in his State of the Union Address, President Bush asked Congress for authority to increase the overall strength of our Army and the Marine Corps by 92,000 over the next five years" (U.S. Department of the Army, 2007, p. 2). The Grow the Army Stationing plan "describes how the Army will grow and station 74,200 Soldiers from fiscal year 2007 to fiscal year 2013" (U.S. Department of the Army, 2007, p. 6).

The planned Active Component Army growth is for six Brigade Combat Teams, eight Support Brigades, and 65,000 Soldiers. Throughout this structure, optometrists are placed in

optometry teams within the Support Brigades. Optometry teams consist of two optometry officers per team; therefore, the Grow the Army Plan calls for an additional sixteen optometrist authorizations that must be recruited by 2011.

Army optometry will continue to support and sustain the Army's future fighting force by providing optometric care, both in fixed facilities at home and through deployable Corp level optical teams. These deployable teams will be able to meet the ocular needs of the combat troops in traditional and irregular theaters of operation. Future optical teams will have the capabilities to deploy and provide care to victims of catastrophic events within the homeland. Additionally, the teams will deploy, augmenting the medical assets that provide humanitarian aid in disruptive environments, to help shape choices of nations. The Department of Defense, therefore, has an important continuing need for qualified Doctors of Optometry to satisfy mission requirements worldwide. In order to provide the needed ocular care in military fixed health care facilities and in rigorous deployed environments, the Army must recruit and retain the best and brightest optometrists the optometry profession has to offer. The critical question therefore becomes, how will the Army recruit and retain these medical professionals?

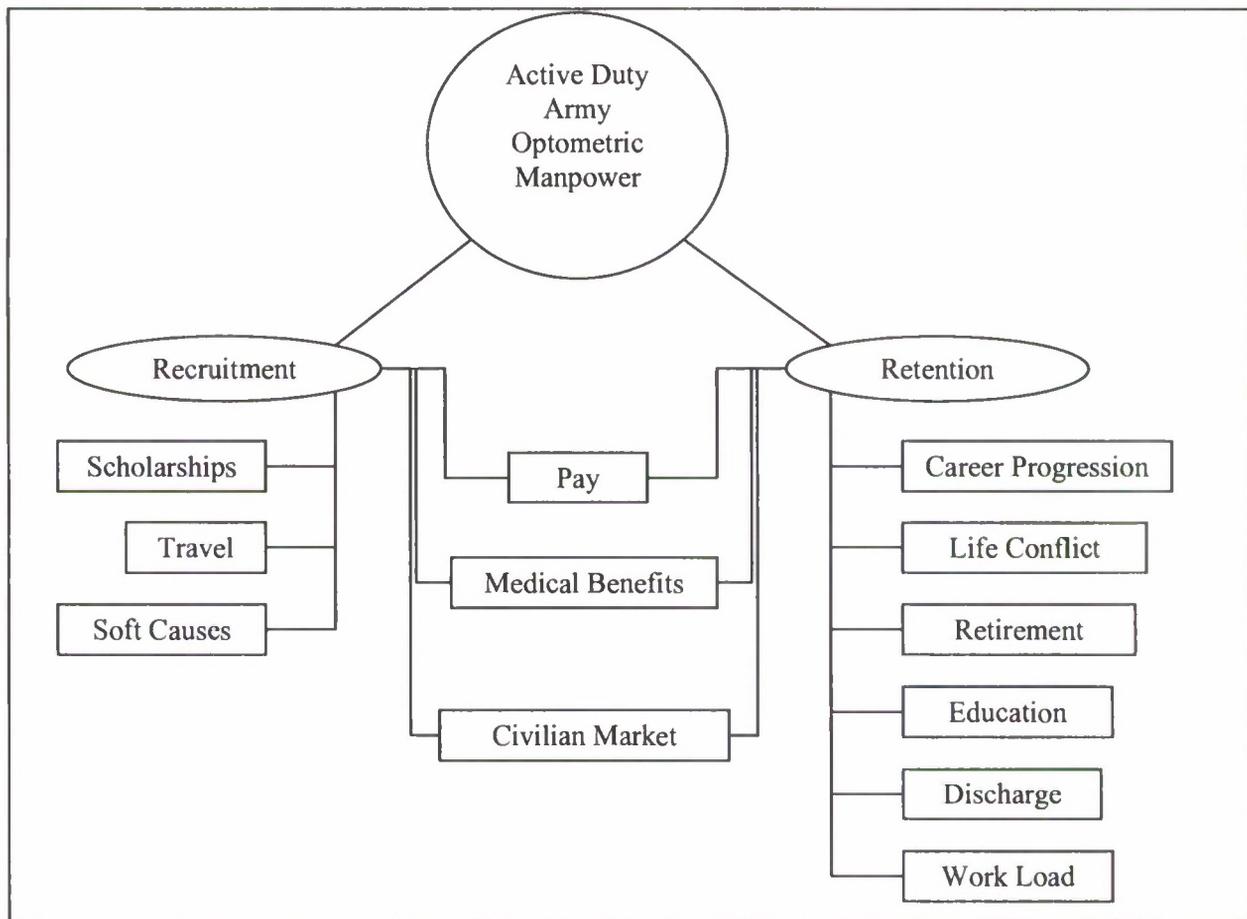


Figure 1. Active Duty Army Optometry Manpower. The figure depicts manpower as a product of recruitment and retention, based upon the variables listed.

Active duty Army optometry manpower can be defined by the Army's ability to recruit and retain optometry military officers. Recruitment can further be defined through the variables of scholarships, travel opportunities, and other "soft" or personally measurable reasons. The recruitment scholarships include the Reserve Officers' Training Corps (ROTC) and the Health Professions Scholarship Program (HPSP). Either scholarship, or a combination of both scholarships, helps recruit the optometry officer and obligates him or her to a predetermined number of years of active duty service in exchange for school funding. After the obligation, the officer decides whether or not to continue military service, thus making scholarship a recruitment tool. The offer of travel, or the offer to place a Soldier in a desired location, is another recruitment tool available to the Army. Some recruitment causes are "soft" or personal in nature,

which are difficult to measure. For example, an optometrist may choose to join the Army out of a personal call for duty, honor, and country.

The construct of retention can further be defined by the variables of career progression, life conflict, retirement, discharge, education, and workload. Career progression can be measured through promotion opportunities, through years of active duty service, and through additional military schooling. Career progression can also be measured through professional growth within the officers' healthcare profession. The variable of "life conflict" has numerous measures related to retention. For example, service during a time of war or having a baby is a life altering event that could be measured in determining an optometry officer's willingness to stay in the Army. The Army optometrist may have a desire to achieve a military retirement which can also be a measurement of retention. Measurable education opportunities that can influence an optometrists' willingness to continue military service include advanced degree programs and continuing medical education requirements that are provided by the Army. Medical or performance discharges can be measured, and both have a negative impact on retention. Finally, workload can also be a measurement. Too much or too little work could persuade the retention decision of an Army optometrist.

Several variables, however, have both retention and recruitment measures. For example, demand for optometrists in the civilian market will influence the pool of optometrists available for recruitment into Army service. Similarly, a need for optometrists and pay incentives in the civilian sector could pull optometrists from military service. A Soldier may enter the service for medical benefits for their family or for themselves; likewise, a Soldier may be retained in the Army for those same medical benefits.

Statement of the Problem

The focus of this paper is the variable of optometry special pay. Special pays are determined by Congress, written in law, and paid to the military provider either as mandated in the law or through Army policy. The specific purpose of this paper is to call attention to the fact that the amount of Regular Special Pay for Army optometrists has remained unchanged since 1971. The current Regular Special Pay offered to Army optometrists does not meet the original intent of the law. Optometry Regular Special Pay was designed to recognize the optometrist's education investment, their civilian earning potential, and to provide equality to healthcare professionals. While education expenses, civilian earnings, and the special pays of other health care professionals have all increased, optometry Regular Special Pay has not.

An additional problem is justifying any increased cost associated with adjusting optometry Regular Special Pay. A second order effect of the Regular Special Pay law is its impact on recruitment and retention of Army Optometrists. By directly or indirectly linking the Regular Special Pay to the recruitment and retention of Army optometrists, this paper would justify any increased cost of the antiquated special pay.

To answer the problem, this paper will further examine the recruitment and accession tools, previously defined and evaluated by the Center for Naval Analyses in their 2002 and 2003 studies. This paper will compare Army optometrist pay to that of the competing civilian market, and will then look specifically at the law encompassing Regular Special Pay for optometrists. In addition, this paper will compare recruitment and retention pay systems of similar healthcare providers within the Army. Finally, by showing a decrease in purchasing power since the Regular Special Pay was first enacted, this paper will substantiate how ineffective the pay is in meeting the purpose for its creation.

This paper then examines four proposals to change the law/policy associated with optometry special pays. Each proposal speculates the potential impact of changes to the Regular Special Pay on recruitment and retention of Army optometrists. The purpose of examining Army optometry pay incentives is to recruit and retain the best and brightest optometrists for our military profession in order to provide our warfighters the best optometric care, during peacetime and during war.

Evidence

Retention

In a 2002 report to Congress, Brannman, Miller, Kimble, & Christensen conducted a Center for Naval Analyses study on health professions' retention-accession incentives. This study evaluated the adequacy of special pays and bonuses for medical officers and selected other healthcare professionals. This analysis evaluated the Military Health System's (MHS) ability to meet the healthcare professional personnel requirements by examining historical data, evaluating retention and accession trends, evaluating the effect of pay on retention, and assessing the MHS's ability to meet its needs in later fiscal years.

For military optometrists, the study found that "pay grade is an important factor in evaluating the MHS's ability to meet its workforce objectives" (p. 176). They found the most dramatic retention declines occurring in the O-3 (officer pay grade three, equivalent to an Army captain) and O-4 (Army major) pay grades. Further, the trend reversed for O-5 (lieutenant colonel) and O-6 (colonel) positions. In other words, increased manning in the higher pay grades helped to offset the attrition rate of the lower ranks.

This trend continues today as represented in Figures 2 and 3. The fiscal year (FY) 2007 histogram of Army Optometry Force Management is available on the Medical Operational Data

Systems (MODS) website.

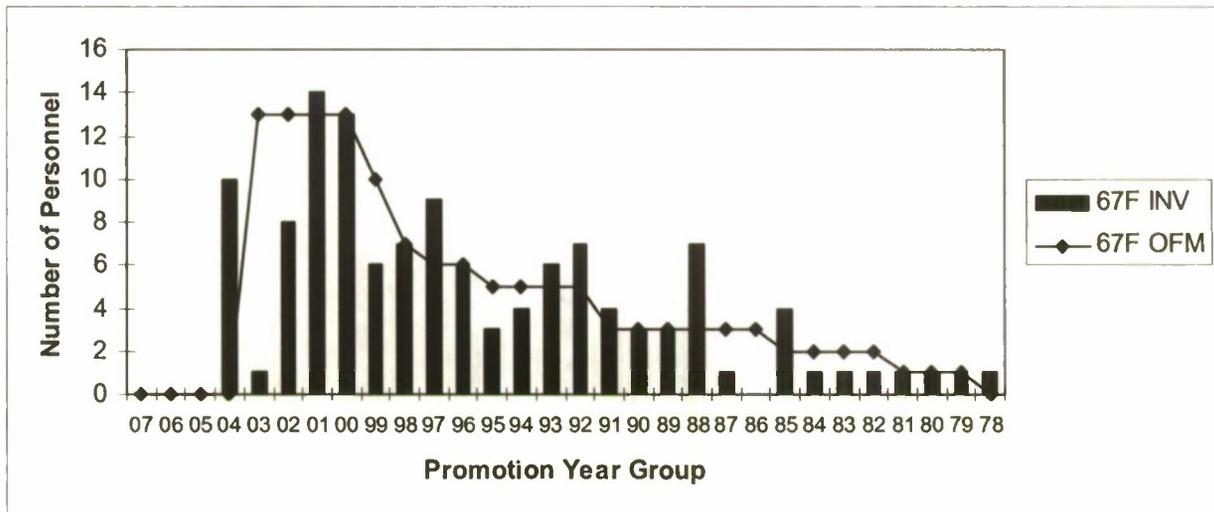


Figure 2. Fiscal year 2007 Army Optometry Force Management. Note. 67F is the Area of Concentration (AOC) code for optometry officer. INV is inventory and OFM is officer force model. Model is based on an inventory of 123 optometrists (AMEDD Human Resources, Medical Operational Data Systems, 2008, force model by promotion year group [Data file]).

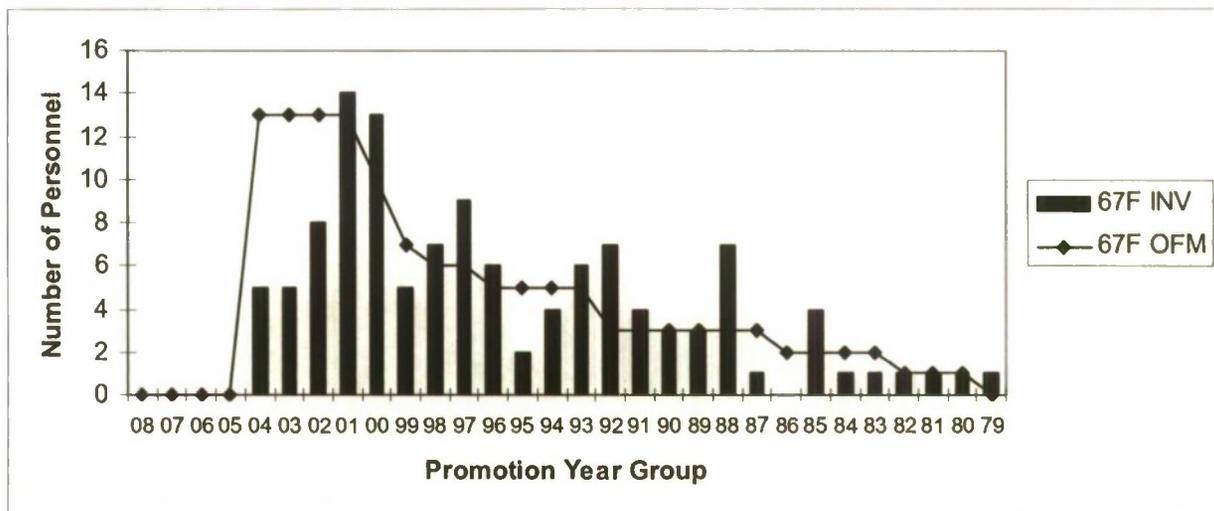


Figure 3. Fiscal year 2008 Army Optometry Force Management. Note. 67F is the Area of Concentration (AOC) code for optometry officer. INV is inventory and OFM is officer force model. Model based on an inventory of 119 optometrists (AMEDD Human Resources, Medical Operational Data Systems, 2008, force model by promotion year group [Data file]).

These current models continue to show the Army’s under strength in lower year groups, offset by more senior officers. Furthermore, the Department of Defense (DoD) shows that Army optometry is under strength. Each year, the Defense Manpower Data Center, Information Delivery System reports the total authorizations and end strength for DoD optometrists.

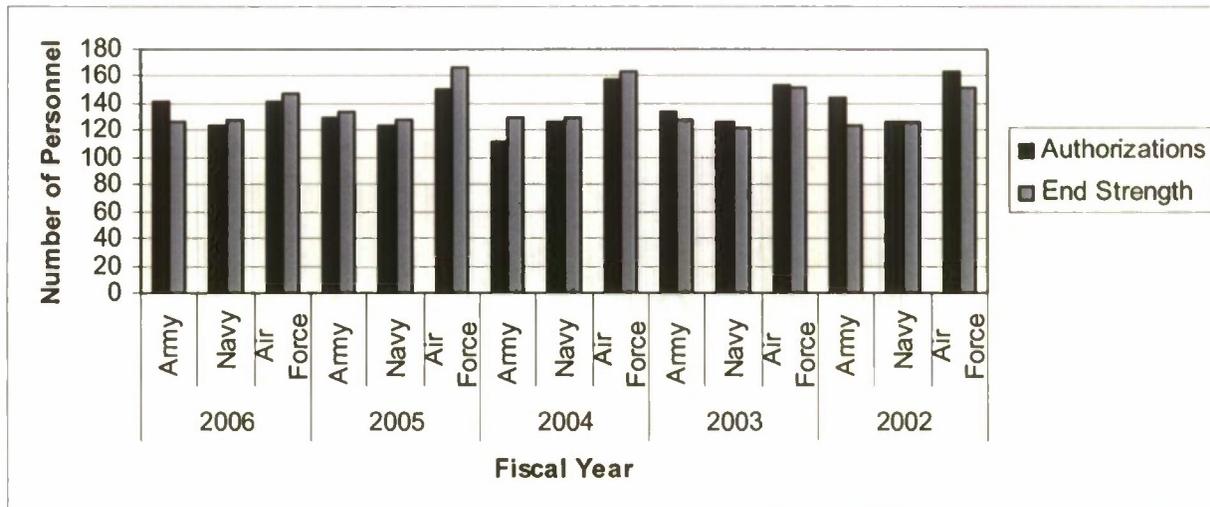


Figure 4. Department of Defense Authorizations and End Strength, Fiscal Years 2002 thru 2006. Note. Data obtained from the Defense Manpower Data Center (Defense Manpower Data Center, Information Delivery System, 2008, [Data file]).

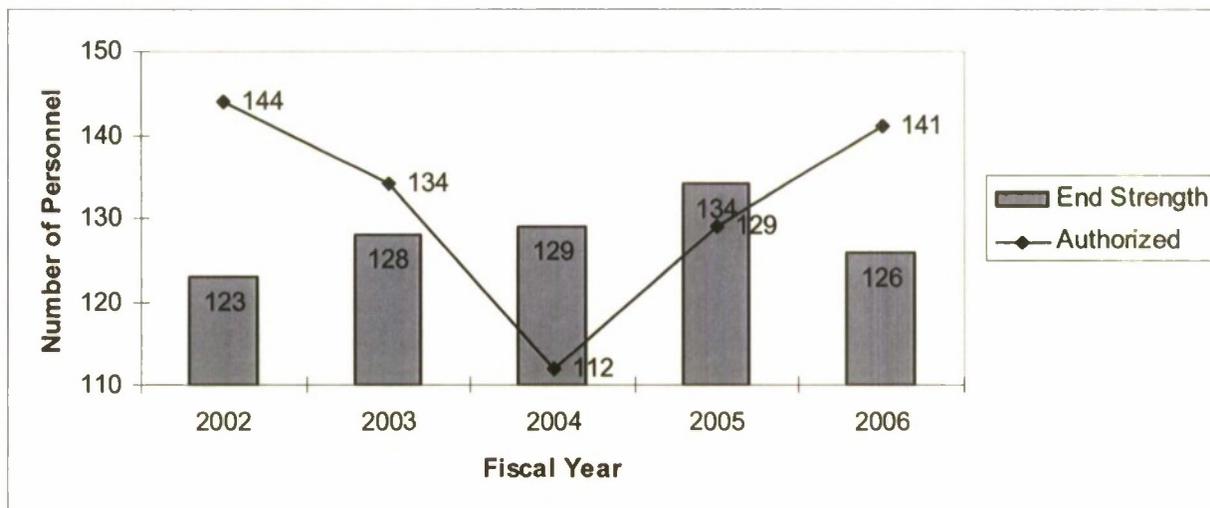


Figure 5. Army Optometry Manpower, 2002 thru 2006. Note: Data obtained from the Defense Manpower Data Center (Defense Manpower Data Center, Information Delivery System, 2008, [Data file]).

Figures 4 and 5 show that Army optometry did not meet its authorizations in 2002, 2003, and 2006. Further, Army end strength has remained relatively consistent. End strength only met authorizations in 2004 and 2005 due to a significant decline in 2004 authorizations.

With the previously stated Grow the Army initiative, combined with increased missions and the broadened scope of optometric practice, the need not only to retain, but to recruit Army optometrists is increasing. Brannman et al. also noted in their study that the Armed Forces Health Professions Scholarship Program (HPSP) “has become the predominant accession source

for this specialty ... Therefore, an aggressive effort should be made to retain optometrists to reduce the need for this costly accession source” (p. 184).

Recruitment

Christensen, Brannman, Sanders, Rattelman, & Miller, in 2003 published the life-cycle costs of selected uniformed health professions. This study was conducted to determine the DoD costs associated with attracting, accessing, training, and maintaining a healthcare professional in the military health system. The accession recruiting costs of a healthcare provider consist of recruiting costs and accession bonuses. “Recruiting costs account for military and civilian personnel costs, advertising, communications, training, computer support, travel, supplies, equipment, and leased facilities used to recruit health professionals into the military” (p. 6). The Services make a substantial investment to recruit healthcare professionals. In 2003, those costs for the Army were estimated to be \$34,492 per healthcare provider.

Education is also an accession cost to the Army for optometrists who receive the HPSP. The scholarship includes tuition, fees, supplies, equipment, books, a stipend, and administrative costs. In 2003, the team estimated the value of the scholarship to “range between \$40,000 and \$47,000, depending on the health profession. Because most [HPSP] scholarships are for two to four years, this represents a substantial investment by the Services” (p. 9). The Medical Education Directorate at the Army’s Office of The Surgeon General estimates the current 2008 four-year scholarship tuition and stipend to average between \$118,000 to \$120,000, with up to an additional \$6,500 for equipment and books. By retaining five optometry officers annually, thus reducing the number of optometry HPSPs, the Army could potentially save \$632,500. This value is higher than all of the proposed special pay increases outlined later in this paper.

Data obtained from Army Medical Operational Data Systems, Medical Education

website, and AMEDD Human Resources website, was used to retrospectively evaluate the accession and retention of HPSP, ROTC, and direct accession Army optometry officers.

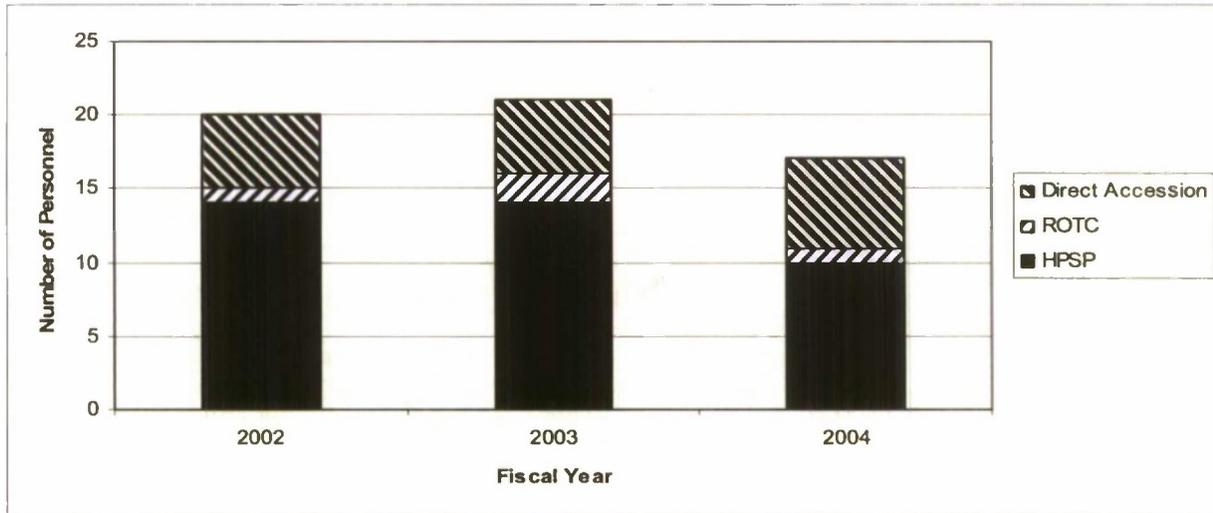


Figure 6. Army Optometry Recruitment 2002 thru 2004. Note. Data compiled from Medical Education (Medical Operational Data Systems, 2008, Data file) and AMEDD Human Resources (AMEDD Human Resources Medical Operational Data Systems, 2008, obligation worksheet report [Data file]).

From FY 2002-2004, 58 optometrists entered the Army; 41 were males, and 21 of the group had some form of prior military service. Their ages ranged from 26 to 44 upon entry. Thirty eight were HPSP recipients, 16 were direct accessions, and four entered Army optometry through the ROTC delayed entry program.

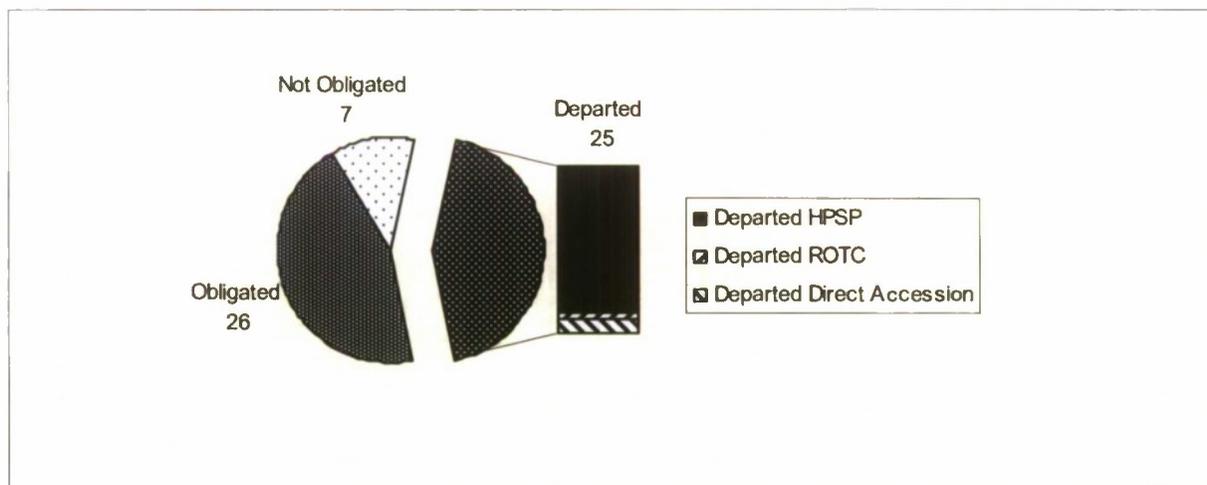


Figure 7. Army 2002 thru 2004 Cohort as of January 2008. Note. Data compiled from AMEDD Human Resources (AMEDD Human Resources, Medical Operational Data Systems, 2008, loss/gain roster [Data file]).

As of January 2008, 20 of the 58 optometrists had deployed to a combat theater, of which, 17 still remain in Army service. Twenty five left the Army, 22 of which were HPSP recipients. That is a 57.9% attrition rate for HPSP officers. Of the 33 remaining providers, 26 remain in the service due to an obligation for training (n=5), a Retention Special Pay (n=6), an overseas assignment (n=9), or other undefined obligation (n=6). Of those with an obligation, 11 are eligible to exit Army service in 2008. Interestingly, 7 remain in the Army without a service obligation. This means they did not accept a Retention Special Pay, selecting instead to retain the option of resigning their commission and departing Army military service at any time. Therefore, a potential 18 optometrists could leave the Army in 2008 resulting in the retention of only 15 of the original 58 member cohort, a 26% retention rate over a six year period.

This example suggests that the HPSP is effective in supplying the Army with junior officer optometrists; however, the scholarship does not necessarily retain senior leaders. If this is the case, additional training, education, funding, and experience of these officers must be perpetually invested into new optometry students to meet the needs of the Army.

Reviewing the FY 2005 thru 2007 recruitment data from the U.S. Army Recruiting Command (USAREC), Health Services Directorate historical data, exemplifies this finding. In 2005, there was a requirement for one direct accession optometrist and fourteen HPSP optometrists. In 2006, the direct accession number increased to five, and the HPSP goal was 13. In 2007, direct accessions increased again to seven, of which there were no direct accessions, and the Army closed the recruiting gap at the expense of offering additional HPSP scholarships.

Table 1

U.S. Army Recruiting Command, Optometry Officer Recruitment

Fiscal Year	Direct Accessions		Health Professions Scholarship Program	
	Goal	Achieved	Goal	Achieved
2005	1	2	14	12
2006	5	1	13	13
2007	7	0	8	13
Totals	13	3	35	38

Note: Data obtained from U.S. Army Recruiting Command, January 2008

Recruitment and retention will be enhanced by offering our junior officers a special pay package which aids to narrow the military-civilian pay gap from the time they enter military service. Due to HPSP and ROTC training obligations, Retention Special Pay is not available to junior officers until they complete their service obligation. At that time, they are also able to exit the Army. While the junior officers are eligible for Regular Special Pay, the current amount does not impact the military-civilian pay gap. The return on an earlier investment of increased Regular Special Pay can increase retention, thus decreasing the Army's need to boost the number of costly HPSP scholarships and retention bonuses in order to meet its manning requirements.

Competing Market

"It is costly to compete in the marketplace to recruit, train, classify, and employ trained personnel and then have them leave the service. Retaining well-prepared personnel is important, particularly when resources are scarce" (Mangelsdorff, 2006, p. 13).

Forecasts of the civilian ocular healthcare market yield mixed reviews. In 2000, White, Doksum, & White estimated an excess supply of optometrists through 2020. They cited the "relatively low number of optometrists exiting the profession" and "reduced time requirements for routine eye health examinations" as the primary reasons for the anticipated surplus (p. 297). They approximate 550 to 800 optometrists retiring from the profession annually; however, 1,125 new optometrists will replace them each year. While they agree that patient encounters will

steadily increase as a result of the growth and aging population, the time the patient spends with the doctor will be reduced due to technology advancements, increased technician support, and cost pressures resulting from managed care. The less time the provider spends per patient, the more patients the provider can examine, which results in a surplus of eye care.

However in a more recent study, Lee, Hoskins, & Parke (2007) indicated several factors that would create eye care manpower challenges by 2020. They cite that “medical progress and technologic advancement create new therapeutic opportunities, resulting in a greater number of patient-provider visits” (p. 409). They also consider the increase of women to eye care professions, which “may further increase in the gap between supply and demand for eye care services” (p. 409). Additionally, they felt earlier studies underestimated the population growth and, therefore, there will be increased demand for eye care.

In 2006, the American Optometric Association (AOA) reported the ophthalmic market to be \$27.2 billion. This number represents a 6.5% increase of the ophthalmic market from 2003 to 2005. Factors contributing to the growth included growth in the economy, increases in the range and volume of the services provided by optometrists, expansion in private third-party and governmental coverage of vision and eye care services, growth in the population requiring eye care, and the public’s enhanced awareness of the importance of good eye healthcare. (Edlow & Markus, 2006, p. 304).

“In 2005, the Association [AOA] estimated that private optometry continued to account for the largest share of the ophthalmic market – approximately 39.1%. The steady trend away from solo practices toward participation in smaller groups and partnerships continues” (Edlow & Markus, 2006, p. 304). They estimated 35,855 full-time equivalent optometrists in the workforce during 2005 (Edlow & Markus, 2006, p. 304). Nevertheless, as the state of the civilian eye care

market changes, it has not created an influx of optometrists into Army service as seen by the accessions and retention data presented earlier.

Civilian Pay

A pay gap exists between civilian optometrists' income and that of a military optometrists'. Every two years, the AOA Information and Data Committee surveys members regarding their practice income, expenses, and other economic factors. (Edlow & Markus, 2007, p. 674).

Table 2

AOA Survey of Self-employed Optometrists Mean Net Income, 1996-2006

Practice Type	1996	1998	2000	2002	2004	2006
Group	\$118,801	\$143,961	\$187,107	\$213,776	\$218,103	\$251,735
Individual	\$92,637	\$112,365	\$132,826	\$132,813	\$148,923	\$175,329

Note: Data obtained from Journal of the American Optometric Association, 2007. n=510.

Table 3

AOA Survey of Self-employed Optometrists Median Net Income, 1996-2006

Practice Type	1996	1998	2000	2002	2004	2006
Group	\$90,000	\$105,000	\$142,000	\$155,000	\$161,000	\$160,000
Individual	\$85,000	\$98,000	\$116,000	\$114,500	\$127,500	\$140,000

Note: Data obtained from Journal of the American Optometric Association, 2007. n=510.

The committee sent 4,000 income surveys to optometrists belonging to the AOA of which 510 were completed, for a response rate of 13%. The tables show the mean (Table 2) and median (Table 3) annual net incomes of self-employed optometrists. The optometrists practiced in a group or individual practice. Members of the Armed Forces also responded to the AOA income survey, estimating their mean and median net income to be \$101,579 and \$84,000, respectively (Edlow & Markus, 2007, p. 676).

Using the web based Army Military-Civilian Cost System, the average annual cost of regular military compensation for an O-3, is \$80,953.28 (U.S. Army Cost and Economic

Analysis Center, Army Military-Civilian Cost System, 2008, Data file). The estimate is based upon the average cost of base pay, basic allowance for housing, and basic allowance for subsistence; using January 2007 pay tables, 2006 inventory, and 2008 budget materials. Using the conservative individual, self-employed median net income of the 2006 AOA income survey, a pay gap of \$59,000 exists for our junior officers. Several laws currently exist to aid in closing this disparity.

The Law

In his book, A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving, Bardach states that “you have to get beneath the rhetoric to define a problem that is manageable and that makes sense in light of the political and institutional means available for mitigating it” (Bardach, 2000, p. 1). The military special pay system is both political, in statute formed by Congress, and institutional, in that it is paid by each military service.

“The military compensation system has evolved as an integral part of the military manpower management system. Its basic purpose is to support the combat arms, and since most military skills are not directly comparable to those in the civilian sector, the compensation system is designed to bring in untrained manpower at a relatively low pay” (Murphy, 1988, p. 19). This compensation system does not properly fit the needs of all military health care specialties because comparable civilian healthcare skills have increasing demand in the civilian market at a higher pay incentive than is offered by military compensation. Like other medical professionals, Army optometrists manage two professions. Not only do they maintain the standards of their optometric profession, but they uphold the professional standards of a military

officer as well. To further the complexity, the Special Pay Study reported to Congress¹ that “the military compensation system is so complex and different from civilian salary structures that comparisons between them are both difficult and arbitrary” (Murphy, 1988, p. 14).

Congress recognizes the importance of recruiting and retaining a military medical force, and by law offers special pays and retention bonuses to meet Service needs. The laws are documented in the Pay and Allowances of the Uniformed Services, Title 37, U.S. Code. Health professions special pays are authorized to provide monetary procurement bonuses, entitlements, incentives, and retention of officers trained and assigned as health professionals and specialists. They contain a flexible element to address specific manning problems in order to retain motivated, skilled, qualified, and experienced health professionals.

Special pay for optometrists grew from preexisting special pay programs of military medical, dental, and veterinary officers. Amending the Military Selective Service Act of 1967, 37 U.S.C. § 302a (1971) enacted special pay for optometrists because “improvement in the optometry staffing was necessary for improved eye care ...” (U.S. Department of Defense Under Secretary of Defense for Personnel and Readiness, 2005, p. 573). The section stipulated that qualifying optometrists be paid the sum of \$100 per month of Regular Special Pay. The \$100 sum was equivalent to the special pay previously granted to veterinarians and justified by stating that both had similar education levels.

Prior to the amendment, the Special Subcommittee on Supplemental Service Benefits stated its recommendations concerning optometry special pay in House of Representatives Report No. 92-82 (1971). The committee recommended a scaled special pay; \$50 per month O-1 to O-3, \$150 per month O-4 to O-5, and \$200 per month any grade above O-5. The document stated that “the Committee believes that when the educational investment and earning capacity of

¹ Report on file at the American Optometric Association, 1505 Prince Street, Suite 300, Alexandria, VA 22314.

optometrists in the public sector are taken into account the pay rates provided here compare justly for those provided in the law for medical and dental officers and for veterinary officers” (p. 19). To reiterate, the factors the Committee used in determining their optometry special pay recommendation were the provider’s education investment, civilian earning potential, and equality to other health care professionals. The pay’s second order effect was the recruitment and retention of military optometrists.

When the amendment was enacted, there were no provisions to increase the amount. In Title II - Pay increase for uniformed services; special pay, Amending the Military Selective Service Act of 1967, Public Law 92-129, § 201, 81 Statute 649, dated September 28, 1971, the basic monthly pay rate for an O-3 with less than two years of service is listed at \$654.30 (p. 8). That is the same year the \$100 a month per officer of Regular Special Pay for optometrists was authorized (p. 10). The Regular Special Pay in 1971 was a substantial 13.25% of the O-3 officer’s income. In 1971, the \$100 per month special pay helped to narrow the gap between military optometrist and civilian optometrist total compensation. Indirectly, this helped recruit and retain military optometrists into the new “all volunteer” military from the civilian market. Without the foresight of determined adjustments to the Regular Special Pay, the pay has drastically lost purchasing power since its inception.

In 1989, the American Optometric Association and the Armed Forces Optometric Society investigated the need to increase the \$100 rate. Colonel John T. Leddy, MSC, USA Chief Army Optometry, Assistant Chief of the Medical Service Corp (MSC), and Consultant to the Surgeon General for Optometry, made a statement to the United States Senate Appropriations Subcommittee on Defense on June 20, 1989:

“Military optometrists have responsibility for the visual welfare of all active duty personnel, their dependants and other beneficiaries. It is the responsibility of service optometrists to keep the active duty personnel in a combat ready posture. This means optometry has to assure commanders their active duty personnel have the best vision plus the required optical appliances, which include spectacles, gas mask inserts, eye protective devices and contact lenses (p. 1).

... Military optometrists go to war. We are assigned to combat divisions and support the division troops. This means optometrists are deployed as far forward as the field commanders desire (p. 2).

... While optometry is one of four health professions now receiving special pay, the amount - \$100 a month – is viewed as tokenism. This amount has proved to be ineffective in either recruiting or retaining optometry officers. Optometry has not been looked at in about a decade (p. 6).

... Pay in the private sector is almost double, year for year, what the military can offer (p. 7).

... optometric services are necessary for combat readiness. To recruit and retain these scarce health care providers, we have to be more competitive in the marketplace” (p. 7).

Similarly, in a personal letter² to Dr. Edward Slattery, OD dated 30 April 1990, David S. Danielson, Assistant Director, Government Relations, American Optometric Association stated:

“Military optometry goes to war. Military optometry was the last discipline to be drafted under the ‘doctor’s draft’. Because of the difficulty in recruiting this valuable specialty, special pay was awarded in 1971 to help in recruiting optometrists. In 1980 Congress passed an increased special pay package (up to \$4,000), but this congressionally-passed pay bill was vetoed by President Carter. The current special pay of \$100 a month will no longer attract personnel. All indicators point to the need to increase special pay from \$100 a month to about \$600 a month. ... It is important to understand that optometry is not trying to get special pay (as other disciplines are); optometry already has special pay. No new ground is being broken. Optometry simply needs an adjustment to existing law” (p. 1).

Further, in a 1990 personal letter³ to The Honorable Albert Gore, Jr., W. David Sullins, Jr., O.D., then president of the American Optometric Association wrote, “Only doctors of optometry have not had an adjustment in special pay. The existing program of \$100 a month has not changed since the 70’s and no longer has any effect on either recruitment or retention” (p. 2).

² Letter on file at the American Optometric Association, 1505 Prince Street, Suite 300, Alexandria, VA 22314.

³ Letter on file at the American Optometric Association, 1505 Prince Street, Suite 300, Alexandria, VA 22314.

This is important because the special pay was now being argued as a recruitment and retention incentive. It was no longer being thought of as just an entitlement of being a healthcare provider based upon education level and a tool to narrow the pay gap that exists between military and civilian incomes.

In order to increase optometry retention, as part of the National Defense Authorization Act for Fiscal Year 1991, optometrists became eligible for a special retention bonus of up to \$6000 (U.S. Department of Defense Under Secretary of Defense for Personnel and Readiness, 2005, p. 575). 1990 Public Law 101-510 added subsection (b) Retention Special Pay to 37 U.S.C. § 302a. In subsection (b), the Service Secretary of the optometrist's military department could pay an optometrist a retention bonus if the optometrist executed the written agreement as outlined by the statute (see Appendix, (b) Retention Special Pay). Subsequently, the \$100/month special pay became Regular Special Pay in 37 U.S.C. § 302a subsection (a). Retention Special Pay differs from Regular Special Pay in that the Retention Special Pay may or may not be offered. It is based upon the needs of the Service to retain Soldiers. In contrast, Regular Special Pay is mandated by law to be paid as long as the optometry officer meets the qualifications outlined in the statute. Interestingly, the Army chose not to offer a Retention Special Pay at that time. It was not until 2003, Public Law 107-314, 116 Statute 2458, when Congress increased the maximum payable amount of special retention pay payable from \$6000 to \$15000, that the Services began paying the minimum \$6000 Retention Special Pay.

Similar Pay Systems

Title 37, U.S.C. § 234, (1949) Special pay for physicians and dentists entitled physicians and dentists to receive \$100 per month (U.S.C., 1952, p. 2213). Incidentally, in 1949 the monthly basic pay rate for an O-3 with less than 2 years of service was \$313.50 (U.S.C., 1952, p. 2210). Currently, medical officers receive five special pays: variable, medical additional, incentive special pays, multi-year retention bonus, and board certification pay. Special pay: medical officers of the armed forces, found in 37 U.S.C. § 302 (2005) outlines variable, additional, incentive, and board certification special pays for medical officers. Medical Officer Variable Special Pay is paid at the following rates.

Table 4

Medical Officer Variable Special Pay

Years of Creditable Service	Rate	
	Monthly	Annual
Internship	\$100.00	\$1,200.00
Less Than 6 Years	\$416.67	\$5,000.00
6 But Less Than 8	\$1,000.00	\$12,000.00
8 But Less Than 10	\$958.33	\$11,500.00
10 But Less Than 12	\$916.67	\$11,000.00
12 But Less Than 14	\$833.33	\$10,000.00
14 But Less Than 18	\$750.00	\$9,000.00
18 But Less Than 22	\$666.67	\$8,000.00
22 or More Years	\$583.33	\$7,000.00
Grade O7 & Above	\$583.33	\$7,000.00

Note. Obtained from Title 37, U.S.C. § 302 (2005).

Title 37, U.S.C. § 301d (2005) Multi-year retention bonus: medical officers of the armed forces, is another special pay for eligible medical officers who agree to remain on active duty for two, three or four years after completion of any other active-duty service commitment. These officers receive up to a maximum bonus of \$50,000 per year. Pharmacy officers, however, receive a variable Retention Special Pay.

Table 5

Pharmacist Retention Special Pay

Years of Creditable Service	Annual Rate
Less Than 3 Years	\$3,000.00
3 But Less Than 6	\$7,000.00
6 But Less Than 8	\$7,000.00
8 But Less Than 12	\$12,000.00
12 But Less Than 14	\$10,000.00
14 But Less Than 18	\$9,000.00
18 or More Years	\$8,000.00

Note. Obtained from Title 37, U.S.C. § 302i (2005).

Title 37, U.S.C. § 302i (2005) states that the Secretary of the Army may authorize Retention Special Pay to a pharmacy officer of the Medical Service Corps. The amount of Retention Special Pay may not exceed \$15,000 for any 12-month period. The rate of special pay is depicted in Table 5. Pharmacy officers are neither allotted a Regular Special Pay like optometrists, nor are they granted the other special pays authorized for medical officers.

Policy Options

Policy Proposals

To reduce the pay gap between civilian and Army optometrists, based upon recruitment and retention initiatives, and in order to reduce the costs associated with recruitment; this paper presents four policy proposals to change an existing, antiquated policy, of optometry Regular Special Pay. The proposals suggest that a change to the out-of-date Regular Special Pay, and possibly to the current Retention Special Pay of Army optometrists, could provide a powerful tool for the DoD to recruit and retain Army optometrists.

By examining the cost impacts on the Army's 2007 optometry staffing, this paper analyzes four adjustments to the Regular Special Pay as a means to meet the future recruitment and retention optometric manpower needs. The first, and most simple, is to leave the current

system in place. The second is to increase the rate of optometry Regular Special Pay. The third is to implement a combined system of Regular Special and Retention Special Pay. The fourth, and most complex, is to implement a combined, variable system of Regular and Retention Special Pays.

Proposal one

The simplest choice in the analysis is to not alter anything. Based upon the Medical Operational Data Systems Fiscal Year 2007 histogram of Army Optometry Force Management (Figure 2), there are 123 active duty Army optometrists.

Table 6

Proposal 1: No Change to Current Optometry Special Pays

Years of Service	Army Providers in 2007	Current Regular Special Pay (per month)	Annual Total	Current Retention Special Pay (per year)	Annual Total
Less than 4	38	\$100	\$45,600	\$0	\$0
Less than 4, Eligible	8	\$100	\$9,600	\$6,000	\$48,000
4 but less than 8	28	\$100	\$33,600	\$6,000	\$168,000
8 but less than 12	20	\$100	\$24,000	\$6,000	\$120,000
12 but less than 18	18	\$100	\$21,600	\$6,000	\$108,000
18+	11	\$100	\$13,200	\$6,000	\$66,000
Totals	123		\$147,600		\$510,000
					\$147,600
				Current Regular Special Pay and Retention Special Pay Annual Total	\$657,600

Note. Less than 4 and Less than 4, Eligible is the result of a training obligation as per Title 37, U.S.C.A § 302a (2006). Army's Current Regular Special Pay Annual Total is the result of multiplying the number of Army providers, by the Current Regular Special Pay, by 12 (months). Army's Current Retention Special Pay Annual Total is the result of multiplying the number of Army providers by the Current Retention Special Pay.

In 2007, each of the 123 active duty officers was eligible to receive the special pay of \$100/month, or \$1,200 annually. Of those officers, 38 were ineligible by Title 37, U.S.C § 302a(b)(2) (see Appendix) to receive special retention pay. For instance, the officer may not have completed their initial active-duty service commitment incurred for education and training,

i.e. a post HPSP scholarship commitment. A note about Retention Special Pay. As the 2002-2004 study group reviewed earlier shows, not all eligible officers accept special retention pay. For simplicity, all proposal models assume Retention Special Pay is paid if the officer is eligible. The total cost to the Army in optometry specialty pay for 2007 was \$657,600.

Proposal two

The second proposal is to increase the rate of optometry Regular Special Pay. A simple solution could be to base the increase upon the value of inflation, or increase the \$100/month to \$512/month as outlined in Table 10.

Table 7

Proposal 2: Regular Special Pay Increase

Years of Service	Army Providers in 2007	Proposed Regular Special Pay (per month)	Annual Total	Current Retention Special Pay (per year)	Annual Total
Less than 4	38	\$512	\$233,472	\$0	\$0
Less than 4, Eligible	8	\$512	\$49,152	\$6,000	\$48,000
4 but less than 8	28	\$512	\$172,032	\$6,000	\$168,000
8 but less than 12	20	\$512	\$122,880	\$6,000	\$120,000
12 but less than 18	18	\$512	\$110,592	\$6,000	\$108,000
18+	11	\$512	\$67,584	\$6,000	\$66,000
Totals	123		\$755,712		\$510,000
					\$755,712
				Special Pay Increase and Retention Pay Annual Total	\$1,265,712
				Current Regular Special Pay and Retention Special Pay Annual Total	\$657,600
				Change from Current Pays	\$608,112

Note. Less than 4 and Less than 4, Eligible is the result of a training obligation as per Title 37, U.S.C.A § 302a (2006). Proposed Regular Special Pay Annual Total is the result of multiplying the number of Army providers, by the Proposed Regular Special Pay, by 12 (months). Army's Current Retention Special Pay Annual Total is the result of multiplying the number of Army providers by the Current Retention Special Pay. Current Regular Special Pay and Retention Special Pay Annual Total is from Table 6.

This proposal would increase an optometry officer's annual Regular Special Pay total from \$1,200 to \$6,144 per officer and would increase the Army's Regular Special Pay and Retention Special Pay annual total to \$1,265,712; a \$608,112 increase over the current system.

Proposal three

The third proposal is to implement a combined system of recruitment and retention pay into a single sum assessed and paid by years of service. This system is similar to pharmacy officer's special pay under 37 U.S.C. § 203i (2005) found in Table 5.

Table 8

Proposal 3: Combined Special Pay

Years of Service	Army Providers in 2007	Proposed Combined Special Pay (per year)	Annual Total
Less than 4	38	\$3,500	\$133,000
Less than 4, Eligible	8	\$3,500	\$28,000
4 but less than 8	28	\$12,000	\$336,000
8 but less than 12	20	\$14,000	\$280,000
12 but less than 18	18	\$10,000	\$180,000
18+	11	\$7,500	\$82,500
Totals	123		
Combined Pays Annual Total			\$1,039,500
Current Regular Special Pay and Retention Special Pay Annual Total			\$657,600
Change from Current Pays			\$381,900

Note. Less than 4 and Less than 4, Eligible is the result of a training obligation as per Title 37, U.S.C.A § 302a (2006). Proposed Combined Pays Annual Total is the result of multiplying the number of Army providers by the Proposed Combined Special Pay. Current Regular Special Pay and Retention Special Pay Annual Total is from Table 6.

Officers previously ineligible for a retention pay under the current system would be entitled to \$3,500 in this scenario. This is a direct result of the adjustment of the current \$1,200 annual Regular Special Pay with a slight increase for inflation. Change from current special pays is \$381,900.

Proposal four

The fourth scenario, and most complex of the four, is to make the Regular Special Pay and special retention bonus variable.

Table 9

Proposal 4: Variable Special Pays

Years of Service	Army Providers in 2007	Proposed Variable Special Pay (per month)	Annual Total	Proposed Variable Retention Special Pay (per year)	Annual Total
Less than 4	38	\$300	\$136,800	\$0	\$0
Less than 4, Eligible	8	\$300	\$28,800	\$6,000	\$48,000
4 but less than 8	28	\$350	\$117,600	\$8,000	\$224,000
8 but less than 12	20	\$400	\$96,000	\$10,000	\$200,000
12 but less than 18	18	\$450	\$97,200	\$6,000	\$108,000
18+	11	\$500	\$66,000	\$2,500	\$27,500
Totals	123		\$542,400		\$607,500
					\$542,400
				Variable Special Pay and Variable Retention Pay Annual Total	\$1,149,900
				Current Regular Special Pay and Retention Special Pay Annual Total	\$657,600
				Change from Current Pays	\$492,300

Note. Less than 4 and Less than 4, Eligible is the result of a training obligation as per Title 37, U.S.C.A § 302a (2006). Proposed Variable Special Pay Annual Total is the result of multiplying the number of Army providers, by the Proposed Variable Special Pay, by 12 (months). Proposed Variable Retention Special Pay Annual Total is the result of multiplying the number of Army providers by the Proposed Variable Retention Special Pay. Current Regular Special Pay and Retention Special Pay Annual Total is from Table 6.

Under this scenario, both Regular Special Pay and Retention Special Pay are variable. The purpose of this scenario is to preserve the intent of the currently mandated \$100/month special pay by increasing its value, while restructuring the current Retention Special Pay to impact those officers which need to be retained. The total change from the current pays is \$492,300.

Evaluative Criteria

Five criteria were developed to evaluate each proposal. The five evaluation criteria are defined as: the increase in cost to the Army, recruitment of Army optometrists, retention of Army optometrists, reduction in the military-civilian pay gap for junior officers, and the similarity of optometry special pay to that of other military providers. Increase in cost to the

Army is easily obtained from each model. Each proposal's value is compared to the baseline cost of not changing optometry's current special pays. Recruitment potential was selected because it underlies all incentive pays, as does retention. Retention, however, decreases the need for expensive accession costs, like HPSP awards. Retention, therefore, is a separate criterion. The reduction in the military-civilian pay gap for junior officers is highest for the greatest increase to junior officer's special pay. This criterion is central to the initial intent of the Regular Special Pay. Likewise, the similarity of optometry special pay to that of other military providers is fundamental to optometry Regular Special Pay.

Each criterion was rated using a simple high, medium, and low scale. High is operationally defined as: an increased cost of \geq \$600,000, recruitment \geq 10 direct accessions per year, a retention rate \geq 96% of DoD authorized end strength, reducing the military-civilian pay gap by \$12,200 for junior officers with 4 but less than 8 years of creditable service, and most similar to medical officer's special pay system. Medium is operationally defined as: an increased cost between \$400,000 to \$599,999, recruitment of 5 to 9 direct accessions per year, a retention rate between 91-95% of DoD authorized end strength, reducing the military-civilian pay gap by \$12,001 to \$12,199 for junior officers with 4 but less than 8 years of creditable service, and similar to medical officer's special pay system. Low is operationally defined as: an increased cost of \leq \$399,999, recruitment \leq 4 direct accessions per year, a retention rate \leq 90% of DoD authorized end strength, reducing the military-civilian pay gap by \$12,000 or less, and a special pay system other than that of medical officers.

Projected Outcomes

Based upon the evidence presented, the four proposals, and evaluative criteria, an outcomes matrix was developed.

Policy Proposals	Evaluative Criteria				
	Cost to Army	Recruit	Retain	Reduce Military-Civilian Pay Gap	Similarity to Other Providers
1. No Change	No Change	Low	Low	Low	Medium
2. Regular Special Pay Increase	High	High	High	Medium	Medium
3. Combined Special Pay	Low	Low	High	Low	Low
4. Variable Special Pays	Medium	Medium	High	High	High

Figure 8. Outcomes Matrix.

Analysis

By leaving the current system in place, proposal one, the Regular Special Pay will continue to lose value. For example, by adjusting the \$1,200 annual special pay of 1971 by the consumer price index (CPI) figures listed by the Bureau of Labor Statistics, the Regular Special Pay would need to be increased to \$6,143, or \$512 a month to have the same purchasing power in 2007.

Table 10

Adjusting 1971 Regular Special Pay by Consumer Price Index

Year	Average CPI	Factor	Special Pay	Current	Adjusted
2007	207.4	5.1	Annual	\$1,200.00	\$6,143.70
1971	40.5		Monthly	\$100.00	\$511.98

Note: Data obtained from U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Indexes, 2008, Data file.

This lost purchasing power will not increase cost to the Army; however, it will not help to significantly narrow the military-civilian pay gap. Keeping outdated Regular Special Pay may, therefore, have a negative effect on recruitment and retention. To its credit, the first proposal does have similarity to the medical officer special pay system in that optometry special pay has an entitled Regular Special Pay and an authorized Retention Special Pay.

By offering an increased Regular Special Pay, proposal two has the highest cost to the Army and narrows the military-civilian pay gap. The trade-off of this high cost is decreased funding for other Army programs. Both recruitment and retention would be positively affected.

This proposal meets the objective of this policy analysis by addressing the outdated value of the current Regular Special Pay. The problem of specifically targeting and retaining junior officers, however, is not addressed by this method. Proposal two's \$12,144 to retain officers with over 18 years of service is poorly allocated.

Proposal three also addresses the out-dated value of the current Regular Special Pay by removing it and forming a single recruitment and retention combination special pay. Since the Regular Special Pay has such a reduced purchasing power by today's standards, the question is raised whether to do away with the optometry Regular Special Pay. Doing away with the pay, however, also removes the purpose of the pay, which is to recognize the optometrist's education investment, civilian earning potential, and bring military optometrists equality to that of other healthcare professionals. Secondly, this pay can positively affect recruitment and retention.

"Economic theory and common sense suggest that a decline in military compensation, relative to civilian compensation, would make the military less attractive to those contemplating entering military service or those facing a stay-leave decision" (Murphy, 1988, p. 14). Under proposal three, if the Army had a surplus of optometry officers and the Secretary of the Army choose to not pay the combined retention pay, Army optometrists will lose all special pay to include the current \$100/month Regular Special Pay. Removing the Regular Special Pay, then, will send a negative message to these officers.

Unlike proposal two, proposal three does focus on retaining needed junior officers. Of the four change proposals, three offers the lowest cost increase to the Army and is similar to the special retention pay offered to pharmacists. This proposal, however, negatively affects recruitment of non-scholarship recruits. Currently, HPSP and ROTC accessions are not entitled to a Retention Special Pay due to their training obligation. In this proposal, their special pay

would be \$3,500, a \$2,300 increase. Non-scholarship recruits, however, are currently eligible for a Retention Special Pay. They would decrease their special pays by \$3,700. Proposal three, then, continues to entice costly scholarship recruits and fails direct accessions.

The fourth proposal addresses the out-dated token value of the current Regular Special Pay and makes it a variable special pay. Of the three change proposals, proposal four is the medium cost increase to the Army.

Proposal four also redistributes the Retention Special Pay. Its variability targets the officers needing to be retained, specifically senior O-3's and O-4's. If the Army has a surplus of optometry officers, the Secretary of the Army may choose to not pay the variable retention pay and impact retention. This proposal, then, gives the Secretary of the Army a powerful tool for retention of optometry officers. In conjunction with the proposed changes to Regular Special Pay, the proposed changes to the Retention Special Pay can achieve desired recruitment and retention goals to bring optometry officer end strength in line with future requirements.

As stated earlier, Army Medical officers receive several special pays. Incentive special pay and additional special pay require written agreement for a one year service obligation. Both are subject to termination by the Secretary of the Army. Medical officer variable special pay, however, is an entitlement in law, paid monthly, and available to all medical officers, regardless of service obligation. Variable special pay for medical officers is similar in structure to optometry Regular Special Pay.

It is the medical officer's special pay model that proposal four emulates. It suggests amending the optometry Regular Special Pay to a variable special pay, like that of medical officers. As an entitlement, as is the current optometry Regular Special Pay, junior officers will be eligible to receive variable special pay while under other initial service obligations. Proposal

four will, therefore, help to close the military-civilian pay gap of junior optometry officers and closing the pay gap will enhance recruitment initiatives. The variable increase of pay for prolonged years in service will also augment retention. Further, because the pay variably increases in value as the provider gains valuable military and optometric experience, this variable special pay is similar to a pay increase a civilian optometrist receives with additional years in practice.

Additionally, proposal four's change of the Retention Special Pay is also similar to the multi-year retention bonus of medical officers. The proposed optometry variable Retention Special Pay, however, has a more direct impact on retention of junior and mid-grade officers than does the current lump-sum retention bonus available to all medical officers and optometrists, after their initial service obligation.

Recommendation

Due to the medium cost increase to the Army, for the increased benefit of recruitment and retention of Army optometrists, and in order to reduce the military-civilian pay gap, the author recommends proposal four as the best proposal for changing the outdated optometry Regular Special Pay policy.

Important to note is that even if military optometry pay is similar professionally, the potential to earn a greater income is increased in the civilian sector. A military medical professional, "sitting on the fence" as to whether or not to stay in the military, may see the perceived earnings potential in the civilian market as a reason to leave military service. Therefore, routine examinations and comparisons between civilian and military professional pays, maintaining a small pay gap between the two, will aid recruitment and retention of military medical professionals. Further, successful marketing of military pays and benefits is

fundamental to not only retaining optometrists, but attracting optometrists into military service.

Assumptions to this proposal are that the increased special pays may positively affect recruiting and retaining quality optometrists and decrease the cost of training new Army optometrists. This would also reduce the number of Army HPSP awards, thereby lowering the recruitment costs due to the lower turn over of optometrists. This paper recognizes there are other variables of recruitment and retention (outlined earlier in this paper) that have influenced Army optometry manpower over the three year study presented. Those variables do not change the fact that the current Regular Special Pay amount is outdated.

A confounder to implementation of this policy change is that the necessary change to the law would need to be supported by the other branches of military service and by Congress for the legislative change. For proposal four to be achieved, a Unified Legislation and Budgeting (ULB) proposal would need to be drafted, staffed, and submitted into the Planning, Programming, Budgeting and Execution System. If the ULB process is successful, the proposal proceeds to the DoD General Counsel, Omnibus Process, and then to the Congressional process and the National Defense Authorization Act.

Future studies could survey military optometrists to determine other factors of recruitment and retention, and quantify the impact of pay on recruitment and retention. Further, if proposal four became law, future studies could quantitatively evaluate the proposal's return on investment of increased special pay effectiveness on recruitment, retention, and reduced HPSP scholarship award costs. The change could then be used as a model for special pays of other military health care professionals.

Conclusion

Now is the opportunity for the military to sustain its optometric professional force by

means of a nominal increase to an outdated, established Regular Special Pay for optometrists.

Continued optometric care will better visually prepare our military force for its current and future combat, training, and peacetime missions. The recruitment and retention of optometry military professionals is essential as our transforming military increases its roles and missions in the global war on terrorism and Homeland Security. As this transformation increases the Army's missions, the role of the optometry providers will increase not only to providing vision care for our Soldiers, Sailors, and Airmen; but to also, when called upon, provide vision care to our nation's civilians in times of disaster, and to the civilians of other nations in need.

References

- AMEDD Human Resources, Medical Operational Data Systems. (2008). *Obligation worksheet reports, medical service corps, 67F* [Data file]. Available from AMEDD Human Resources Web site, <https://apps.mods.army.mil/Personnel/Secured/password.asp>
- AMEDD Human Resources, Medical Operational Data Systems. (2008). *Officer web reporting, force management, force model by PYG* [Data file]. Available from AMEDD Human Resources Web site, <https://apps.mods.army.mil/Personnel/Secured/password.asp>
- AMEDD Human Resources, Medical Operational Data Systems. (2008). *Officer web reporting, force management, loss/gain roster, january 2008* [Data file]. Available from AMEDD Human Resources Web site, <https://apps.mods.army.mil/Personnel/Secured/password.asp>
- Bardach, E. (2000). *A practical guide for policy analysis: The eightfold path to more effective problem solving*. New York: Chatham house publishers seven bridges press, llc.
- Brannman, S., Miller, R., Kimble, T., & Christensen, E. (2002). *Health professions' retention-accession incentives study report to congress (phases II and III: Adequacy of special pays and bonuses for medical officers and selected other healthcare professionals)* (CRM D0004460.A5 March 2002). Alexandria, VA: Center for Naval Analyses Production Services.
- Christensen, E. W., Brannman, S., Sanders, J., Rattelman, C., and Miller, R. D. (2003). *Life-cycle costs of selected uniformed health professions (Phase I: Cost model methodology)* (CRM D0006686.A3/Final April 2003). Alexandria, VA: Center for Naval Analyses Production Services.

- Defense Manpower Data Center, Information Delivery System. (2008). *Table A10, active duty authorizations and end strength selected health professional officers by corps level and primary specialty as of fiscal year end 2006, 2005, 2004, 2003, and 2002*. [Data file]. Available from Defense Manpower Data Center Web site, <https://pki.dmdc.osd.mil>
- Edlow, R.C., & Markus, G. R. (2007, December). National highlights: 2007 AOA economic survey. *Optometry – Journal of the American Optometric Association*, 78, 674-677.
- Edlow, R.C., & Markus, G. R. (2006, June). State of the profession: 2006. *Optometry – Journal of the American Optometric Association*, 77, 304-309.
- Leddy, J. T. (1989). *Statement of colonel John T. Leddy, msc, usa to the appropriations subcommittee on defense U.S. Senate*.
- Lee, P. P., Hoskins, H. D., & Parke, D. W. III. (2007, March). Access to care: Eye care provider workforce considerations in 2020. *Archives of Ophthalmology*, 125(3), 406-410.
- Mangelsdorff, A. D. (Ed.). (2006). *Psychology in the service of national security*. Washington, DC: American Psychological Association.
- Medical Education, Medical Operational Data Systems. (2008). *Reports, history, students by school* [Data file]. Available from Medical Education Web site, <https://apps.mods.army.mil/MedEd/UserLogon/UserLogon.asp?MessageOk=1>
- Murphy, J. F. (Study Director). (1988). *Health professionals special pays study: Report to congress on armed forces health professionals special pays: Other health care providers*. Washington, DC: U.S. Department of Defense.
- Military Selective Service Act of 1967, H.R. Rep. No. 92-82 at 19 (1971).
- Military Selective Service Act of 1967, Pub. L. No. 92-129, § 201, 81 Stat. 649 (1971).
- Military Selective Service Act of 1967, Pub. L. No. 107-314, 116 Stat. 2458 (2003).

Pay and Allowances of the Uniformed Services, 37 U.S.C.A. § 302a (1971).

Pay and Allowances of the Uniformed Services, 37 U.S.C. § 301d (2005).

Pay and Allowances of the Uniformed Services, 37 U.S.C. § 302 (2005).

Pay and Allowances of the Uniformed Services, 37 U.S.C. § 302a (2005, January). Retrieved February 7, 2008 from <http://www.access.gpo.gov/uscode/title37/title37.html>

Pay and Allowances of the Uniformed Services, 37 U.S.C. § 302i (2005).

Pay and Allowances of the Uniformed Services, 37 U.S.C.A. § 302a (2006).

U.S. Army Center for Health Promotion and Preventive Medicine. *History of army optometry*.

Retrieved September 25, 2007, from

<http://chppm-www.apgea.army.mil/doem/vision/Army/About/History.doc>

U.S. Army Cost and Economic Analysis Center, Army Military-Civilian Cost System

(AMCOS). (2008). *AMCOS lite: Active officer, all cost, medical service corps, 67F: optometry, january 2008* [Data file]. Available from AMCOS Web site,

<http://www.osmisweb.com/amcos/app/home.aspx>

U.S. Army Recruiting Command. (2008, January). *Health services directorate historical file*, [Data file].

U.S.C. (1946 ed.). (1952). Supplement V, Titles 34-50, January 3, 1947 to January 7, 1952.

Washington, DC: United States Government Printing Office.

U.S. Department of the Army. (2007). *Grow the Army Stationing Plan: As of December 2007*:

Report to the Congress of the United States. V 1. Washinton, DC: Author.

U.S. Department of the Army Pamphlet 600-4. (27 June 2007). *Army Medical Department*

Officer Development and Career Management. Washington, DC: Headquarters

Department of the Army.

U.S. Department of Defense. (2006, February 6). *Quadrennial defense review report*.

Washington, DC: Author.

U.S. Department of Defense Under Secretary of Defense for Personnel and Readiness.

(2005, May). *Military compensation background papers*. Washington, DC: Author.

U.S. Department of Labor, Bureau of Labor Statistics. Consumer Price Indexes. (2008).

Consumer price index table containing history of CPI-U U.S. all items indexes and annual percent changes from 1913 to present, (2008) [Data file]. Available from U.S.

Department of Labor Web site, <http://www.bls.gov/cpi/>

White, A. J., Doksum, T., & White, C. (2000, May). Workforce projections for optometry.

Optometry, 7(5), 284-300.

Appendix

Special Pays for Uniformed Services Optometrists

The following states the current special pays for optometrists that are found in *Pay and Allowances of the Uniformed Services*, Title 37, Chapter 5, Special and Incentive Pays, section 302a. It was retrieved from the U.S. Code Online via <http://wais.access.gpo.gov> on February 7, 2008. The law is in effect as of January 3, 2005. Special Pay of \$100 a month began in 1971.

TITLE 37--PAY AND ALLOWANCES OF THE UNIFORMED SERVICES

CHAPTER 5--SPECIAL AND INCENTIVE PAYS

Sec. 302a. Special pay: optometrists

(a) Regular Special Pay.--Each of the following officers is entitled to special pay at the rate of \$100 a month for each month of active duty:

(1) A commissioned officer—

(A) of the Regular Army, Regular Navy, or Regular Air Force who is designated as an optometry officer; or

(B) who is an optometry officer of the Regular Corps of the Public Health Service.

(2) A commissioned officer—

(A) of a Reserve component of the Army, Navy, or Air Force who is designated as an optometry officer; or

(B) who is an optometry officer of the Reserve Corps of the Public Health Service, who is on active duty as a result of a call or order to active duty for a period of at least one year.

(3) A general officer of the Army or the Air Force appointed, from any of the

categories named in clause (1) or (2), in the Army, Air Force, or the National Guard, as the case may be.

(b) Retention Special Pay.—

(1) Under regulations prescribed under section 303a(a) of this title, the Secretary concerned may pay an officer described in paragraph (2) a Retention Special Pay of not more than \$15,000 for any twelve-month period during which the officer is not undergoing an internship or initial residency training.

(2) An officer referred to in paragraph (1) is an officer of a uniformed service who—

(A) is entitled to special pay under subsection (a);

(B) has completed any initial active-duty service commitment incurred for education and training; and

(C) is determined by the Secretary concerned to be qualified as an optometrist.

(3) An officer may not be paid Retention Special Pay under paragraph (1) for any twelve-month period unless the officer first executes a written agreement under which the officer agrees to remain on active duty for a period of not less than one year beginning on the date the officer accepts the award of such special pay.

(4) The Secretary concerned may terminate at any time the eligibility of an officer to receive Retention Special Pay under paragraph (1). If such eligibility is terminated, the officer concerned shall receive such special pay only for the part of the period of active duty that the officer served and may be required to refund any amount in excess of that amount.